

Table 17. Solar net generation (all sectors), projected versus actual

Projected*

(billion kilowatthours)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AEO2007	1.2	1.6	2.0	2.3	2.5	2.6	2.7	2.7	2.8	2.9	3.0	3.0	3.1	3.2	3.3	3.5
AEO2008		1.7	2.2	2.2	2.4	2.4	2.8	3.1	3.4	3.5	3.7	3.8	4.0	4.2	4.4	4.6
AEO2009			2.0	2.8	3.9	4.9	6.1	7.8	9.7	13.7	17.9	18.0	18.1	18.2	18.4	18.6
AEO2010				3.2	4.4	6.0	8.1	10.4	12.8	15.3	18.0	18.1	18.3	18.4	18.5	18.7
AEO2011					4.8	6.8	8.9	11.2	12.9	14.8	16.9	17.0	17.1	17.2	17.3	17.5
AEO2012						6.8	10.0	13.9	17.2	20.3	23.5	23.5	23.6	23.7	23.9	24.1
AEO2013							13.7	20.7	26.7	31.7	35.3	36.2	36.4	36.7	37.1	37.6
AEO2014								16.8	25.7	31.1	35.9	36.8	37.1	37.4	38.0	38.6
AEO2015									28.9	36.0	43.3	48.9	49.8	50.4	51.3	52.4
AEO2016										37.6	51.2	72.5	81.0	86.7	92.5	115.1
AEO2017											53.7	71.5	82.0	88.9	96.1	102.2
AEO2018												75.1	88.6	118.7	142.4	159.0
AEO2019													100.2	115.2	134.0	156.4
AEO2020														113.4	140.7	181.1
AEO2021															132.4	167.6
AEO2022																164.3
Actual*	1.0	1.3	2.0	2.4	3.6	5.6	10.5	17.2	28.9	39.0	54.9	77.3	93.4	106.9	130.7	163.7
Average absolute difference	0.2	0.3	0.1	0.4	0.9	1.6	3.9	7.2	13.4	18.3	27.4	41.9	51.4	58.4	70.9	87.6

Table 17. Solar net generation (all sectors), projected versus actual (continued)

Projected versus actual*
(percentage difference)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AEO2007	20.8	23.4	1.7	-6.9	-29.7	-53.7	-74.5	-84.0	-90.3	-92.6	-94.6	-96.1	-96.7	-97.0	-97.4	-97.9
AEO2008		29.7	8.0	-7.4	-34.2	-56.7	-73.7	-82.1	-88.2	-90.9	-93.3	-95.0	-95.7	-96.1	-96.6	-97.2
AEO2009			2.1	15.0	8.0	-13.8	-41.9	-54.3	-66.6	-65.0	-67.4	-76.7	-80.6	-82.9	-85.9	-88.7
AEO2010				31.6	22.1	5.6	-23.0	-39.3	-55.8	-60.9	-67.1	-76.5	-80.4	-82.8	-85.8	-88.6
AEO2011					32.9	20.4	-14.7	-34.8	-55.3	-62.0	-69.2	-78.0	-81.7	-83.9	-86.7	-89.3
AEO2012						19.8	-4.3	-19.1	-40.5	-47.9	-57.2	-69.5	-74.7	-77.8	-81.7	-85.3
AEO2013							30.4	20.6	-7.7	-18.7	-35.7	-53.1	-61.0	-65.7	-71.6	-77.0
AEO2014								-2.1	-11.1	-20.3	-34.6	-52.4	-60.3	-65.0	-70.9	-76.4
AEO2015									-0.2	-7.7	-21.1	-36.7	-46.7	-52.9	-60.8	-68.0
AEO2016										-3.6	-6.6	-6.2	-13.2	-18.9	-29.2	-29.7
AEO2017											-2.2	-7.4	-12.2	-16.8	-26.5	-37.5
AEO2018												-2.8	-5.1	11.0	8.9	-2.9
AEO2019													7.3	7.7	2.5	-4.4
AEO2020														6.1	7.7	10.6
AEO2021															1.3	2.4
AEO2022																0.4
Average absolute percentage difference	20.8	26.5	3.9	15.2	25.4	28.3	37.5	42.0	46.2	47.0	49.9	54.2	55.1	54.6	54.3	53.5

Data source: Historical data are from the U.S. Energy Information Administration open data API (accessed April 2022), <http://www.eia.gov/opendata/>, series: TOTAL.SOTEPUS.A; projections: Annual Energy Outlook, Reference case projections from various editions

Notes: shading indicates overestimation (blue) or underestimation (green).

*Does not include off-grid photovoltaics. Differences in data availability prior to 2014 for small-scale solar (systems less than 1 MW each) also contributed to the variances between projections and actuals.